ABSTRACT

A unit fuel injector, the injector internally preparing fuel during an injection event at a pressure sufficient for injection by means of an intensifier driven by a pressurized non-fuel actuating fluid selectively ported to the intensifier, includes a selectively actuatable controller interposed in a fuel passage, the fuel passage effecting fluid communication between an intensifier fuel chamber and a needle valve, the controller being shiftable between an open and a closed disposition for selectively opening and closing the fuel passage during the injection event. A control apparatus and a method of injection timing control are further included.